MAKING ENVIRONMENTAL PURCHASING CHOICES

within

THE CANADIAN PARKS SERVICE

- AN INFORMATION DOCUMENT -

Prepared by:
Socio-Economic Branch
Canadian Parks Service
July 1990

Environment Canada
Canadian Parks Service

Environnement Canada
Service canadien des parcs

Canada

Recycled Paper
Papier Recyclable

92-02741/

ACKNOWLEDGEMENTS

The task of preparing this study would have been much harder were it not for the assistance of many people. Christine Rollo of the Corporate Policy Group, Environment Canada, provided documentation about the Environmental Choice Program. Dominique Francoeur of Supply and Services Canada clarified the position and role of her department vis-à-vis the Program. She also provided details about the federal government purchasing process. Janet Randall of the Canadian General Standards Board and Ahmad Husseini of the Canadian Standards Association were both extremely helpful in explaining the role of their respective organizations with respect to the Program. Kelly Masson of Material Management, Canadian Parks Service (CPS), explained internal procurement policies and procedures. Mike d'Amour of Finance (CPS) patiently supplied the necessary financial data, as well as answered numerous queries regarding the interpretation thereof. Dave Huddlestone of Visitor Services (CPS) provided access to his 'environmentally friendly' products files, which aided in determining where the Service was at with respect to such products. Finally, Jean-Yves Cayen and Jim Frehs deserve a special mention for their input and editing assistance.

SUMMARY

This report aims to orient the Canadian Parks Service in regards to the environmental choices now available when purchasing goods. In doing so, it examines both the Department of the Environment's Environmental Choice Program and the framework of federal government purchasing. The context for the Service's interest in environmentally responsible purchasing is also laid out.

The concept of sustainable development has been identified as the cornerstone of the federal government's long-term environmental strategy. As an important component of the Department of the Environment, the Canadian Parks Service will have to contribute to sustainable development objectives. Such objectives must be of major consideration in determining the Service's policy vis-à-vis environmentally responsible purchasing.

While services and processes bought should also be scrutinized as to their environmental soundness, this study was limited to the purchase of products. Financial data was examined in order to determine which products represent major expenditures. Opportunities for potential starting points when attempting to make appropriate environmental purchasing choices were then identified.

There is great interest within the Service in undertaking environmentally less harmful purchasing initiatives. By using products endorsed by the Environmental Choice Program, the Service is less likely to use products whose environmental effects are questionable. It will also be encouraging and promoting the Program, components to the Program's success. In making such purchasing choices, the Service will also be perceived by the public as assuming a pro-active role with regards to sustainable development.

Principle recommendations were that the Service develop a strategy regarding the use of less environmentally harmful products and that the Service use, wherever appropriate, those products which are endorsed by the Environmental Choice Program. In order to implement such policy, the Canadian Parks Service will need to continue research in the area of environmentally appropriate purchasing, giving special attention to the possible implications for contracting and material management.

CONCLUSIONS

After studying the framework of the Environmental Choice Program and government purchasing principles, and keeping in mind the government's committment to sustainable development, it appears that the Canadian Parks Service is ideally positioned to contribute to the Department of the Environment's environmental protection mandate by using environmentally less harmful products. This idea is strengthened by the fact that many employees are undertaking what are perceived to be environmentally less harmful initiatives on their own, with little or no consistency throughout the Service.

The Environmental Choice Program uses a systematic process to identify and endorse products considered to be less environmentally harmful than other products serving the same function. Standards are developed for each new product category, ensuring that products submitted for attestation are evaluated in a careful, rather than haphazard, manner. By using goods endorsed by the Program, the Service is much less likely to find itself using products whose environmental effects are questionable or controversial.

In using the Environmental Choice Program, the Service will also be encouraging and promoting it; components essential to the Program's success.

By making the appropriate environmental purchasing choices, the Canadian Parks Service will benefit in a variety of ways. Not only will its conservation mandate be further enhanced, but given its visibility, the Service will also be perceived as assuming a pro-active (rather than reactive) role, vis-à-vis sustainable development.

The purchase of environmentally less harmful products within the Service will also encourage Supply and Services Canada to change its purchasing policies.

A study of the products bought by the Canadian Parks Service shows that many of the top expenditures (by $) fall into Environmental Choice Program categories or have been identified by staff members as areas of environmental concern. These products provide a logical starting place when considering purchasing alternatives. It will be necessary to consider, when contemplating such alternatives, supply/demand questions, costs and implications, and the mechanisms in place to determine if purchasing choices are appropriate. In cases where no purchasing alternatives are available, the Service should consider the viability of eliminating such purchases.

RECOMMENDATIONS

The Canadian Parks Service should develop a policy regarding the use of environmentally less harmful products.

Because the Service is bound in its actions, to an extent, by the Treasury Board and Supply and Services Canada, it must continue to encourage them to develop their own policy direction. The adoption of such policy is critical to the success of any initiatives undertaken by the Canadian Parks Service.

The Canadian Parks Service should use those less environmentally harmful products which are endorsed by the Environmental Choice Program in place of other products whenever appropriate.

All requisitions should include a clause indicating that environmentally less harmful products should be given preference, as should those whose manufacturing process is deemed to be less harmful to the environment.

The Service should use its interpretation and extension programs to further promote the use of less environmentally harmful products as a component of sustainable development.

The Service should also hold awareness sessions on less environmentally harmful products and the Environmental Choice Program for purchasing staff. In fact, sessions should be extended to those people who are the end users of the purchased material in order to build consciousness of the current environmental situation and to identify how individuals can contribute.

Further studies should be undertaken to examine how less environmentally harmful products can fit into Canadian Parks Service contracting procedures. Processes should also be examined for their environmental acceptability. Possible connections between the Environmental Assessment Review Process (EARP) and the environmental effects of products and processes should be explored. Financial data should also be studied in further detail, as it is necessary to have a solid understanding of the implications of the Canadian Parks Services role in economic development.

TABLE OF CONTENTS

Page

ACKNOWLEDGEMENTS i

SUMMARY ii

CONCLUSIONS iii

RECOMMENDATIONS iv

1.0 INTRODUCTION 1

2.0 ENVIRONMENTAL CONCERNS AND THE MARKET 3

3.0 THE ENVIRONMENTAL CHOICE PROGRAM 6

- 3.1 Background 6
- 3.2 Framework 7
  - 3.2.1 The Cradle-to-Grave Concept 8
  - 3.2.2 The Process 9
- 3.3 Objectives 10
- 3.4 Concerns About the Environmental Choice Program 10

4.0 THE CANADIAN PARKS SERVICE CONTEXT FOR EXAMINING THE ENVIRONMENTAL CHOICE PROGRAM 12

- 4.1 Canadian Parks Service Purchasing and the Environmental Choice Program 13

5.0 CURRENT EFFORTS AT MAKING APPROPRIATE ENVIRONMENTAL CHOICES 15

- 5.1 Department of the Environment Direction on the Environmental Choice Program 15
- 5.2 Canadian Parks Service Staff and the Environmental Choice Program 16
- 5.3 The Role of Co-operating Associations 17

6.0 OPPORTUNITIES FOR MAKING MORE ENVIRONMENTALLY APPROPRIATE PURCHASING CHOICES 18

- 6.1 Methodology 18
- 6.2 Opportunities Identified 19

Page

7.0 CONCLUSIONS AND RECOMMENDATIONS..... 22

BIBLIOGRAPHY..... 24

APPENDIX A: BRIEFING NOTES..... 25
APPENDIX B: GOVERNMENT PURCHASING AND THE CPS..... 27
APPENDIX C: RECYCLED PAPER: A CASE STUDY..... 30
APPENDIX D: IDEAS OF ENVIRONMENTALLY FRIENDLY INITIATIVES SUBMITTED BY THE REGIONS..... 34
APPENDIX E: LIST OF PRODUCT EXPENDITURES, DECREASING ORDER..... 36

1.0 INTRODUCTION

This report aims to orient the Canadian Parks Service (CPS) as to the environmental choices available when purchasing goods and implementing processes. Sustainable development has been the guiding principle of a number of recent major international and national reports, including the Brundtland Report, the World Conservation Strategy and the Canadian Council of Resource and Environment Ministers reports. The World Commission on the Environment and Development (WCED) defines sustainable development as, "development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (WCED, 1987, p.43). It requires that, "the adverse impacts on the quality of air, water and other natural elements are minimized so as to sustain the ecosystem's overall integrity" (WCED, 1987, p.46).

Our Common Future says:

> Environmental protection and sustainable development must be an integral part of the mandates of all agencies of governments...These must be made responsible and accountable for ensuring that their policies, programmes and budgets encourage and support activities that are economically and ecologically sustainable both in the short and long terms (WCED, 1987, p.312).

Governments are starting to work with the ideas expressed in Our Common Future and the other reports. The federal government, particularly, is taking action to integrate sustainable development principles in its environmental policies. The concept has been identified as the cornerstone of its long-term environmental strategy. Prime Minister Mulroney has stated:

> Our basic principle will be sustainable development...In considering any development, any project, any program, we will make its environmental consequences as fundamental a test as we now apply its economic feasibility...Economic development and a clean and healthy environment are allies, not enemies. (Speech to the Marketing & Sales Councils of the Grocery Product Manufacturers of Canada, Nov. 24, 1988, Ottawa).

As part of the Department of the Environment (DOE), the CPS will have to contribute to such efforts. In fact, it is ideally situated to do so, in light of its position vis-à-vis the Canadian public. Many Canadians 'see' the DOE only through the Service's system of parks, canals and sites. The public, with its growing awareness of environmental issues, is critical when it perceives the CPS to be lax in environmental protection. Such criticism can be directed towards any of a wide range of issues - from recycling to wildlife management practices. The result of such negative perceptions is that Canadians see the DOE as lagging, rather than leading, in the use of sound environmental practices, even if the opposite is true.

The use of products and processes which are environmentally less harmful is an important contribution to sustainable development. Unfortunately, it is often unclear just what is 'environmentally less harmful'. The question of the effects of products and processes on the natural environment is one which has rarely been addressed systematically. The federal government has made inroads on this matter with the creation of the Environmental Choice Program (ECP). This labelling and standards program endorses products and processes which meet specific criteria, ensuring that they are environmentally preferable to others serving a similar function. In an effort to ensure the Program's success, the federal government has stated that it will implement purchasing policies which direct its departments and agencies to buy, whenever feasible, products which are environmentally less harmful (DOE Joint news release #PR-HQ-088-68, November 9, 1988, p.1).

In an attempt to take a pro-active, rather than a reactive approach to new policy developments, the CPS is examining new ways to meet its objectives while promoting, and abiding by, sustainable operating principles. The issue of environmentally appropriate purchasing and its implications for the Service is one of several that the CPS must address in the context of an overall strategy on sustainable development. By choosing to make appropriate environmental choices when purchasing goods and services, the Service may be encouraging sustainable development by others, while also fulfilling its resource protection mandate internally. Furthermore, it will also serve to increase the visibility of the ECP. The CPS has the opportunity to encourage public understanding and acceptance of the government's commitment to the natural environment.

As a major purchaser of goods, the CPS is able to influence not only the Canadian public, but also other government departments. For example, it can encourage Supply and Services Canada (SSC) to change purchasing and contracting policies to reflect the importance of using products which are environmentally less harmful. Until there is a demand for such products, there is little incentive for SSC to do so.

This document represents an attempt to position the CPS relative to the environmental choices available when purchasing products and implementing processes. In particular, it asks four main questions:

1) What is the ECP?
2) How does the framework of government purchasing relate to the ECP?
3) Why should the CPS be interested in the ECP?
4) What is the CPS's role with respect to the ECP?

While a definitive answer to the last question is not given, it is hoped that the issues and ideas raised will aid in formulating future CPS policies - policies which keep in mind the concepts of environment-economy linkages and sustainable development. This paper deals specifically with the purchase of products; it does not examine services or processes. However, in order to fully address the question of making appropriate environmental choices, these will also have to be considered.

2.0 ENVIRONMENTAL CONCERNS AND THE MARKET

Recent polls show that Canadians believe they must take personal responsibility for the state of the environment. They also indicate that consumers want to buy products which are environmentally less harmful (eg. the July 1989 Angus-Reid/Southam Environment Project survey). As a result, firms throughout the country are now realizing that marketing environmental awareness makes good business sense. Marketing analysts estimate 'green' products will exceed $1 billion-per-year in sales by the early 1990's (London Free Press, July 12, 1989, p.A8). In light of this demand, industry is beginning to market its products with the environment in mind.

The reasons for consumers turning 'green' are varied. Some attribute the move to the increased media attention given to environmental issues, while others believe it is due to the public's growing disenchantment with materialism. Green consumers are attempting to use the economic forces of the retail marketplace to achieve environmental improvements. The demand for environmentally less harmful products is so great that the list of environmental initiatives taken by business is rapidly growing.

As the list grows, so do the concerns of consumer and environmental groups. Many wonder if companies are really trying to be environmentally responsible. Is the move just a marketing strategy, designed to capitilize on public concern? Or are companies simply reacting in anticipation of stronger environmental legislation? Regardless of their reasons, businesses everywhere are making the conversion. Many watchdog organizations believe that the greening of the media, politicians and corporations are causing consumers to feel guilty about the products they buy. As there are no standards in place against which products may be judged, retailers are free to label any product 'environment-friendly', regardless of its effect on the environment. This lack of standards leaves the consumer quite vulnerable (Winnipeg Free Press, October 6, 1989, p.B22).

The call for tougher labelling standards is widespread. Advertising suggesting environmental concern needs regulating, similar to the way health claims for food are limited by law. Most people are confused by the environmental 'jargon' so commonly used in advertising. As Janine Ferretti, executive director of Pollution Probe, says, "... what we need are some clear definitions of what can be termed 'biodegradable', 'recyclable' or something labelled 'friendly to the environment'. The government has to show some leadership on that front." (Sunday Star, November 26, 1989, p.H3). The Canadian Standards Assiciation (CSA) is currently in the midst of developing standards on biodegradability and recyclability. Draft versions are expected to be ready early in 1990 (personal communication with Mr. Ahmad Hussini, CSA, October 12, 1989). Stricter standards would clarify, and in some cases, eliminate the use of such terms.

Garth Turner, Chair of the Commons Consumer Affairs Committee, said in July 1989 that he would bring the question of standards and advertising for products labelled as being environment-friendly before the Commons Committee (DOE CP news release #000 04-07 0093, July 4, 1988).

In addition, the Consumers Association of Canada (CAC) is developing recommendations for the federal Consumer Affairs Department on labelling and advertising standards. It is concerned that retailers can label any product as being environment-friendly without any independent testing. The CAC's natural environment committee believes that Consumer and Corporate Affairs should develop legal definitions for terms that suggest a product is somehow environmentally superior (DOE CP news release #000 04-07 0549, July 4, 1989).

This belief is echoed in a London Free Press editorial:

> The consumers' group [CAC] is right in calling for tough labelling and advertising standards. It cannot be left in the hands of merchandisers. Pollution Probe played a role in setting the standards for Loblaws, but who will dictate the standards for others as more industries enter the lucrative field?
>
> The federal environment department has been working for more than a year to develop physical and chemical criteria for consumer products that will be allowed to carry its "environmental choice" logo. Under the program, companies can submit their products for review by the Canadian Standards Association.
>
> That should be mandatory. Any product sold as environmentally friendly should be independently tested according to criteria set by regulators, not just by marketers (London Free Press, July 12, 1989, p.A8).

A Winnipeg Free Press editorial goes even further, suggesting that the federal government should give consumers a hotline to call as a firstline defence to their vulnerability in the face of guilt (Winnipeg Free Press, October 6, 1989, p.B22).

Other initiatives are also being taken to address these issues. For example, in June 1989, all Quebec grocery chains joined a provincial Ministry of the Environment round table. The group is to deal with the problems related to the marketing of so-called 'green' products; the government wanting especially to eliminate price wars on such products. All chains have agreed to cooperate - if they do not, they risk not having the Ministry's approval. This kind of surveillance may help prevent the massive confusion with regards to labelling that is now so common (l'Actualite, Nov. 1989, pp.89-96). If the Ministry has its way, all items available to Quebec consumers, within the next few years, should sport a label indicating their environmental effects. While few details of the labelling program are known, planning is said to be well under way.

Internationally, the West German 'Blue Angel Program', after which the ECP is modelled, has proven so successful that the European Economic Council is now considering adopting it on a larger scale. Japan and Norway started similar programs in the first half of 1989; Sweden and France are expected to do so before the end of the year.

The ECP was designed in an attempt to alleviate some of the labelling and standards issues indicated above. While it is generally understood that the Program is not the answer to all the problems associated with making appropriate environmental choices, it will offer the consumer and the retailer some degree of assurance that the product endorsed is indeed environmentally less harmful than others similar to it.

3.0 THE ENVIRONMENTAL CHOICE PROGRAM

The ECP is designed to help people make informed environmental purchasing choices. Products are endorsed by the ECP as being environmentally preferable to others fulfilling the same function. These endorsed products provide the consumer with the opportunity to choose one product over another on the basis of its environmental effects. Ideally, the Program's success will contribute to an improved merge of economic and environmental planning.

The Program is attempting to respond to two factors:

> One is the clear desire on the part of Canadians to put their purchasing dollars to work to protect rather than harm the environment - where a choice is possible. The other is the equally strong desire among manufacturers and retailers to respond to this evolving marketplace with environmentally sound products and services. Our role in The Environmental Choice Program is to provide credible information, to both producers and consumers, as to which goods and services are environmentally benign (EcoLogo, the ECP newsletter, Issue #1, Aug. 1989).

Consumers have become caught up in the global trend to protect the environment. The ECP can play an important role in this movement, helping the public to move towards environmentally sustainable human practices.

3.1 Background

In June 1988, Prime Minister Mulroney announced a new labelling system designed to identify products and processes thought to be environmentally safer in their production, use and disposal. The ECP (originally called the Environment Friendly Products Program) is modelled after the similar West German 'Blue Angel Program', in operation since 1978.

The initiative involves private and public sectors, environmental and academic groups, trade unions and consumers. No one group, least of all the government, predominates. The program is non-coercive and incremental - its success rides on the volition of consumers and industry to participate voluntarily in creating markets for environmentally preferred products.

The program functions through the interactions of three main groups: a Management Board, the Secretariat (DOE) and the CSA. Ultimately the Program will be self-supporting, however the government is providing initial financial help and administration.

In November 1988, the Ministers of SSC and DOE announced jointly the development of a new initiative designed to encourage the purchase of products endorsed as being less harmful to the environment. The statement put the government's massive buying clout behind the ECP. The SSC Minister stated, "I have instructed my officials to amend, where possible, our purchasing practices to encourage the competitive procurement of goods that qualify for environmentally-friendly labelling." The Canadian General Standards Board (CGSB), which as part of SSC is

the major standards-writing organization of the federal government, is also working with DOE to identify potential products (DOE Joint news release #PR-HQ-088-68, November 9, 1988, p.1). (Although there is not yet any formal agreement between SSC and DOE to use ECP products in government procurement, SSC is considering developing the type of policy necessary to cover those government purchases which may not fall under the Program's categories.)

The EcoLogo was unveiled the same day. Chosen by the Canadian public, the logo consists of three doves entwined to form a maple leaf. Each dove represents a sector of society: consumer, industry and government; that they intertwine symbolizes that all three groups must work together to improve the quality of the country's environment.

Early in 1989, the program was renamed the Environmental Choice Program. The 'Environmentally Friendly' name had led people to think that environment-friendly means non-damaging for the environment. Such a goal was unrealistic since almost everything produced has some impact on the environment. The Program further explained that: "We felt extremely concerned about the name. Environment-friendly applies an absolute. Even if the products we are approving are better over another product in the same category, they are not absolutely friendly," said the ECP chair. The new name is symbolic of the choice soon to be offered to consumers (Globe & Mail, June 5, 1989, pg. A12).

The April 1989 Throne Speech reaffirmed the government's commitment to creating environmental policies and programs which recognize the links between the economy and the environment. Specifically, it said the government would continue to "encourage the expansion of Canada's environmental industry...Technology, services and environmentally friendly products are key components of this industry."

3.2 Framework

ECP Management Board members represent a variety of sectors of society and regions of the country. The sixteen-member panel is autonomous of both industry and government, and serves to determine, through public consultation, the kinds of consumer products to be identified. Members are appointed for two years, with re-appointment possible. The advisory panel's principle duties are:

- -to screen proposed product types/categories and to determine which should be passed for further scrutiny;
- -to evaluate citizens' comments (private and corporate) on the advisability of including proposed categories in the program and on appropriate environmental standards or performance criteria for each category;
- -to review the CSA technical committee's recommendations on proposed categories and environmental criteria, in consultation with expert witnesses, as necessary; and
- -to approve product types and their environmental standards for inclusion in the program. (DOE Joint news release #PR-HQ-088-68, November 9, 1988, media backgrounder)

The DOE is working closely with the Management Board, acting as an advisor. In addition, the Program's DOE Secretariat prepares 'briefing notes' on all proposed product categories. These notes are used in evaluating each category's relative environmental impact (See **Appendix A**).

The CSA has been contracted by the ECP to provide testing and certification services. It has three main functions, namely managing public reviews of proposed categories and guidelines, verifying that submitted products meet category criteria, and signing licensing agreements with manufacturers eligible to use the label.

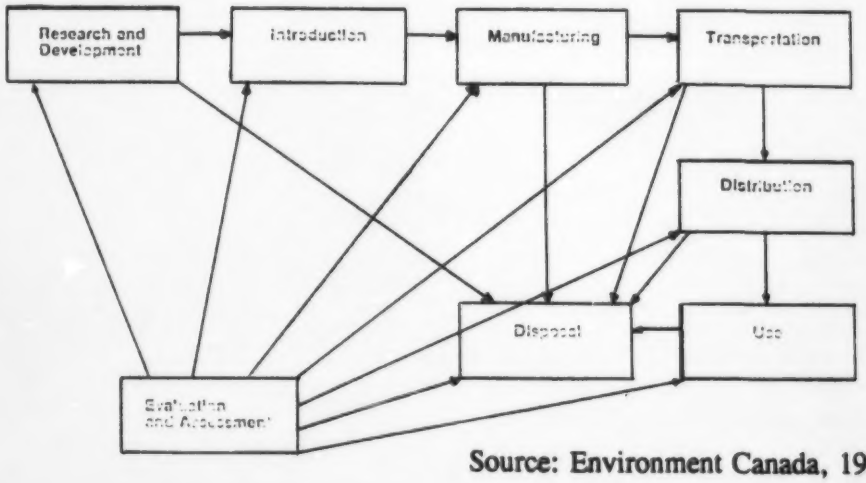
The guidelines, which set out the criteria for endorsement, are the basis of the ECP. These standards, designed to reduce negative environmental effects, are developed following a study of all stages of a product's life-cycle (manufacture, transportation, use and disposal), as is inherent in the Canadian Environmental Protection Act. As new technologies and processes allow, standards will be upgraded.

3.2.1 Cradle-to-Grave Concept

Humans live in delicate balance with the surrounding environment. This balance is often studied through the "ecosystem" approach; an approach which argues that all living things are interdependent. Harming part of this balance may ultimately damage other elements of the overall environment. Due to the complexity of living relationships, the use of the life-cycle management concept at all levels (industry, regulating bodies and consumer) is now being advocated. This concept embraces the "anticipate and prevent" strategy that is inherent in "cradle-to-grave" studies previously only used in managing toxic chemicals.

Life-cycle management scrutinizes all phases of the life of a product or process - development, manufacturing, storage, transportation, use and disposal (see Chart 1). Environmental impacts are identified at each stage, and ways and means of minimizing these impacts are determined. In looking at the life-cycle of a product, it is also possible to identify opportunities to reduce, recycle or reuse (Environment Canada, 1986).

Chart 1. Life-Cycle Linkages



Source: Environment Canada, 1986, p.20

3.2.2 The Process

Products and processes available to the consumer may qualify as being environmentally less harmful within specific product categories. Any packaging, processes, services or products passed, when compared to others having the same function, and when examined from 'cradle-to-grave', must boast an especially high degree of environmental soundness without any reduction in performance or safety (Detail design of ECP - DRAFT).

The procedure involved in endorsing a product is as follows:

1. The **Secretariat** receives suggestions for product categories, and passes them to Management Board members in time for their next meeting.
2. The **Management Board** reviews suggested categories and prepares a priorized list of those judged appropriate for technical review.
3. After the development of a briefing note on the selected product categories and an in-depth review by the Management Board, the **Secretariat** authorizes the CSA to develop draft guidelines.
4. The **CSA** solicits comments on these draft guidelines from any interested parties for a period of sixty days. Public hearings may be scheduled, if needed. After public review, the **CSA** submits a report to the Management Board.
5. The **Management Board** reviews all relevant information received from public comment, the CSA Technical Committee and expert witnesses, and decides if the category will be accepted in the program or referred for further review.
6. Final guidelines are then developed for accepted categories and, following a final review by the Board and recommendation to the Minister of the Environment, are published in Part I of the **Canada Gazette**. A Ministerial announcement invites manufacturers, who believe their product fits the criteria, to apply to the CSA for attestation.
7. The **CSA** receives applications from the manufacturer, who pays for the appropriate testing/verification of the product. If the product meets the criteria, the **CSA** enters into a licensing agreement with the manufacturer. An annual licensing fee, proportional to the retail sales value, is paid by the manufacturer for the use of the EcoLogo.
8. The **Secretariat** arranges a Ministerial announcement of the signing of the licensing agreement. This coincides with the arrival of the labelled product on the market.

(DOE Joint news release #PR-HQ-088-68, November 9, 1988, media backgrounder)

In July 1989, the program's first guidelines were completed. They dealt with three product categories, namely re-refined lubricating oil, construction material made from recycled wood-based cellulose fibre and products made from recycled plastics. The public consultation process for eight other draft guidelines has also finished. Final guidelines for zinc-air batteries, water-based paint, fine paper from recycled paper, miscellaneous products from recycled paper, newsprint from recycled paper, heat recovery ventilators, cloth diapers and solvent-based paints are now available.

Manufacturers are now submitting products falling into these eleven categories for testing, and those meeting the requirements will be licensed to carry the EcoLogo. Draft guidelines for six more product categories are currently available. These are: energy efficient major appliances, reusable shopping bags, composting systems for residential use, ethanol-blended gasoline as an alternative fuel, sanitary paper from recycled paper and diaper services.

In choosing new product categories, the ECP is currently working with SSC to focus on those products and services which have high rates of purchase and large volumes of production. The approximate time elapsed, from the time a product is suggested for a product category to the category's final approval is about one year. Although there are no estimates of how long it will take to build up a comprehensive list of endorsed products, new ones are being added at a rate of about twenty per year.

3.3 Objectives

The Program will fulfill its mandate by achieving seven objectives:

1. To manage toxic chemicals and radioactive material "from cradle to grave" to ensure that they are controlled when they enter the environment;
2. To reduce, reuse and recycle industrial, commercial and consumer waste through the introduction of waste management programs;
3. To manage renewable primary resources to ensure their availability to future generations;
4. To manage non-renewable resources to minimize our dependence on them;
5. To develop transportation systems which minimize energy consumption, land use, and hydro-carbon and particulate emissions;
6. To manage energy generation to reduce consumption and to maximize the use of renewable energy sources; and
7. To protect ecosystems and species diversity.

(Detail design of ECP - DRAFT, pg.5)

It is assumed that public acceptance of the ECP will generate an increased interest in research and development activities by various sectors of our economy. In addition, it should demonstrate that environmental awareness makes good business sense.

3.4 Concerns About the Environmental Choice Program

Some groups are concerned that only the larger, well financed companies will be able to afford the ECP approval, while smaller companies, with lower-profile products, will be left out. Another common concern is that the Program won't help consumers come to the realization that less consumption is ultimately more desirable than switching brands. One environmentalist voiced this worry by saying, "Simply buying another product isn't going to save the planet. What's out there on the shelves right now is based on a marketer's inclination. To that extent, the government's program is irrelevant" (The Sunday Star, November 26, 1989, p.H3).

There is also concern that companies with products endorsed by the ECP, or in fact, with any products claiming to be environment-friendly, will raise their prices simply because polls indicate that consumers are willing to pay more for those products perceived to be environmentally less harmful.

Some organizations, such as the Environmentally Sound Packaging Coalition, believe that the ECP is not addressing the real issue. "We like the concept of giving consumers the choice of purchasing products that are environmentally sound. However, we believe that the [program] should not endorse goods or companies product-by-product, package-by-package." The reasoning behind this viewpoint is that this format could encourage some companies to develop only a showpiece product to meet the performance criteria, without introducing positive changes to their entire product line. A company should be allowed to sport the [ECP] label solely if they had demonstrated that all its products were less harmful to the environment (Canadian Packaging, May 1989, pg.7).

An additional concern is that there will be a temptation for future governments to use a program like the ECP as a means of avoiding having to take tough regulatory action against polluters or to impose fines on them.

4.0 THE CANADIAN PARKS SERVICE CONTEXT FOR EXAMINING THE ENVIRONMENTAL CHOICE PROGRAM

The CPS defines 'heritage' as "an inheritance or a legacy; things of value which have been passed from one generation to the next." The Service's mandate is "to protect for all time those places which are significant examples of Canada's natural and cultural heritage and also to encourage public understanding, appreciation and enjoyment of this heritage in ways which leave it unimpaired for future generations" (Parks Canada, 1983, p.7). Two common elements link this idea to the concept of sustainable development: the passing of a heritage from one generation to another and the ability to use and enjoy it without compromising its integrity.

A number of CPS Program Policies set the context for examining the ECP, of which those concerning heritage resources are perhaps the most significant. The protection of heritage resources has been identified as the Service's primary consideration, and is fundamental to their use and enjoyment by present and future generations (Parks Canada, 1983, p.8). By making appropriate environmental choices when purchasing goods, the CPS is both abiding by policy and contributing to sustainable development. The ECP can play a valuable role in the CPS decision-making process by identifying those products which are environmentally less harmful, thereby helping to preserve the integrity of our Canadian heritage.

As already stated, the CPS is extremely visible, making it a prime agency to further the Department's environmental agenda. The draft discussion document, "Charting the Course: Le chemin a parcourir", devotes an entire section to "Support[ing] the Environmental Agenda" (CPS, 1988, p.11). One of the strategic directions listed is to "make parks models of environmental quality". The following "priority actions for the next five years" enhance the idea that the CPS should adopt the use of products endorsed by the ECP:

1) Develop national messages...to promote concern about man and the environment and global environmental quality.
2) Integrate such themes as...environmentally friendly products...into park interpretation programs.

The Service's policy concerning information and interpretation states, "Parks Canada will undertake a variety of information and interpretation programs to encourage...appropriate use of heritage resources" (Parks Canada, 1983, p.9). By actively choosing to use those products which are environmentally less harmful, the CPS is encouraging the same actions in, and is setting a good example for, visitors. Information about the importance of making appropriate choices could be disseminated through Visitor Services and Interpretation.

The December 1987 Canadian Environmental Advisory Council (CEAC) document, Canada and Sustainable Development, is a commentary on Our Common Future and its implications for Canada. It provides support for the above, saying, "...the interpretation and communication programmes of Parks Canada could, in the longer run, help to broaden public awareness" (CEAC, 1987, p.9).

4.1 Canadian Parks Service Purchasing and the Environmental Choice Program

The February 1989 CPS Sustainable Development Workshop outlined the possibility of revising CPS purchasing policies to demonstrate the use of products deemed to be less harmful to the environment. It was believed that such changes would enable the Service to take a leadership role in demonstrating the wisdom of the sustainable development approach, while also promoting the new ECP initiative (CPS Sustainable Development Network Workshop summary, February 28 - March 1, pp.9,14).

While it is not always possible to make the ideal 'environmental' choice (ie. using electric cars), the ECP does at least provide some choice (ie. recycled lubricating oils). It is the CPS's responsibility to take advantage of whatever choices are available. Such actions help to create markets, thus supporting private initiatives without having to provide government subsidies. Economic spin-offs also result, benefitting industry, community and government.

Although the CPS does some buying on its own, the bulk is directed through, and administered by, SSC. For a detailed explanation of the purchasing process, see **Appendix B**. Because the Treasury Board is the federal government policy maker, any decision taken by SSC about the ECP must be the direct result of a Treasury Board circular. Policy would be directed through DOE because it is the department directly involved with the ECP. Each individual department would then be responsible for implementing it (ie. develop its own administrative policy). An entire spectrum of policy options is available, ranging from the mandatory requirement to purchase ECP products no matter the cost, through the application of a premium on competing bids in favour of those using ECP products, to simply the voluntary purchase of ECP products.

SSC has, in the meantime, recommended the creation of an inter-departmental committee to look at the various options available in regard to the ECP. Such a committee would:

- identify opportunities for action within government from the user perspective;
- identify products that would warrant examination by the ECP Management Board;
- provide input into any draft guidelines developed under the ECP; and
- advise on appropriate government procurement policies for promoting the purchase and use of less environmentally harmful products and services

The Treasury Board has yet to indicate its position on the proposal.

SSC must also consider the question of competitiveness in its buying process. If enough ECP products were available within a particular category then SSC bid lists could be limited to them. SSC must also consider the needs of client departments and the DOE's environmental protection manadate, while keeping within the principles of competition, fairness and equity to suppliers. Products would have to meet any other CGSB requirements (April 5, 1989 letter from Micheline Desjardins-Chase (SSC) to Liz Dowdeswell (DOE)).

In many cases, products bought by the federal government must meet certain standards. While these standards are usually set by the CGSB, some are occasionnally set by either the CSA or

Underwriters Laboratories. Before any product is eligible for an EcoLogo, it must meet or exceed all applicable Canadian governmental and industrial safety and performance standards.

The CGSB has evolved from being an organization that develops purchasing specifications for federal government use to a national organization that serves the needs of the three levels of government, as well as the private sector. Its services are used for a variety of reasons, including purchasing, consumer protection, health and safety and regulatory reference. Standards now exist for over 2000 products and processes. In addition to developing voluntary concensus standards, the CGSB is active in managing Qualification and Certification Listing Programs. The role of the CGSB is further detailed in **Appendix B.**

The CGSB, however, can set standards on environmentally less harmful products even if no official ECP products are available. There is already some demand to set a standard for biodegradable garbage bags, however, because of the controversy associated with the product, the CGSB is taking care to fully study all aspects involved before making any moves to set standards.

By linking CPS purchasing policies with the ECP principles, the Service would be taking its strategic objectives and program policies one step further - ideas would become actions, integrated into the everyday working operations of the parks. Such linkages contribute to sustainable development, making the latter an increased reality within the system; and, in the minds of visitors, a viable alternative to present lifestyles.

In developing policy with respect to making appropriate environmental choices when purchasing goods, the Service should ask itself the following questions:

- What does the concept of sustainable development imply for approaches to decision making in purchasing?
- How well do current purchasing methods support the principles of sustainable development? and;
- How can/do the use of environmentally less harmful products better support sustainable development?

By asking these questions, the Service will be in a better position to determine how its purchasing policies can and do contribute to its manadate.

5.0 CURRENT EFFORTS AT MAKING APPROPRIATE ENVIRONMENTAL CHOICES

The past few years have seen various attempts on the part of CPS staff to make environmentally sensible purchases. Although a few directives are in place to guide the purchase of environmentally less harmful products (ie. pesticide directive), staff are, for the most part, on their own with such initiatives. While such efforts are laudable, there are both problems and drawbacks to such a system. For example, there is the risk of buying products which turn out to be more harmful than initially thought. The complexity of such purchasing decisions can be illustrated through the current controversy over the so-called 'biodegradable' plastic bag. Another problem often encountered is that of consistent supply, a factor which is easily illustrated through the difficulty the Department has encountered when trying to obtain recycled fine paper. Economic aspects, such as the supply and demand issue raised above, are illustrated through a case study of recycled paper, attached as **Appendix C**. By tapping into the ECP, the CPS can avoid such problems, and yet it can continue its efforts to make appropriate environmental choices.

The process involved in obtaining environmentally less harmful products is similar to that detailed in **Appendix B**. When completing a requisition form, employees may specify the properties/quality standards wanted in a certain product. If the cost is under $500.00, the local purchaser, where available, is used. If the cost is over $500.00, two options are available to staff. The first is to make a requisition to SSC, who will in turn tender a contract for the specific product. The second option involves the use of standing offers, however these presently rarely pertain to what may be considered environmentally less harmful products. Because a lack of standards currently exists, procurement officers find it difficult to recognize and purchase acceptable products. Information in this regard, particularly if presented to material management as a list of approved less environmentally harmful products, would greatly encourage their use. Both DOE and SSC should make such lists available to purchasers throughout the federal government.

5.1 DOE Direction on the Environmental Choice Program

An August 1988 memo from the DOE Deputy Minister (DM) to the Assistant Deputy Ministers stated that as a major public sector purchaser, the DOE must set an example to other departments regarding the ECP intiative by fully participating in the program. In preparation for its implementation, all components of the DOE were to ensure that purchasing power is directed, where possible, towards goods qualifying as being environmentally less harmful and competitive with current contract prices. Because a large majority of products used are SSC stock items, staff are somewhat limited in what they can do. Commercial contracts for environmentally less harmful products could generate a growing interest in the environmentally conscious manufacturing sectors of Canadian society. A second memo sent by the DM in October 1988, stated, "purchasing with the environment in mind will of course be simplified when there is a range of products available on the market which carry the environmentally friendly logo." Employees were again urged to prepare standard contract clauses stipulating a purchasing preference for recycled, biodegradable or recyclable products, where possible.

The product consumed the most within the department is paper. While it would seem obvious to use recycled paper only, serious problems have prevented doing so in the past. These have included supply, quality and technical problems. Consequently the DM asked that:

1) staff be reminded of, and are correctly participating in, the program to recycle paper in government offices;
2) all DOE reports and publications be printed on 100 per cent recyclable paper, including covers and bindings and, where available, easily "de-inked" printing; and
3) Conservation and Protection prepare and implement a pilot project on the use of recycled paper in the office environment.

Since the memo was circulated, the ECP has developed three different guidelines dealing with products made from recycled paper; the most relevant of which is fine paper. As the market demand for such a product grows, the problems listed above diminish. The ECP standards help to ensure that this is indeed the case.

Attached to the memo was a short list of environmental purchasing options to be considered by purchasing officers. It included:

- user-pumped sprays;
- water-based typing correction fluid;
- reusable typewriter and printer ribbons;
- departmental publications printed on recyclable paper;
- unleaded gas for road vehicles;
- vehicles which use unleaded gas;
- a preference for products made of recycled materials;
- conference material printed on recycled materials; and
- reusable dishes and cutlery.

In principle, it is imperative that the CPS (and the DOE), notwithstanding cost considerations, be a model for the rest of the country in the use of environmentally less harmful products. Realistically, it is acknowledged that higher priced products can not be purchased on a systematic basis without commensurate increase in budgets. Without such increases forthcoming, this issue will have to be supported through a variety of analytic techniques. For example, cost-benefit analysis could ask if the benefits of environmental protection outweigh the additional costs of such protection. Associated issues such as equity considerations would also have to be incorporated in the analysis.

5.2 Canadian Parks Service Staff and the Environmental Choice Program

Regional and park level staff are taking initiatives to purchase products and use processes which are believed to be environmentally less harmful. The Director General (DG) for National Parks responded in April 1989 to requests from field responsibility centres to explore sources of supply for biodegradable garbage bags. The DG referred to the ECP, saying that since the CPS is throwing its support behind the initiative, he had decided to delay replying until the first guidelines and a products list were issued. He also asked for ideas that could be considered for

the ECP, and could be implemented with few Operations and Maintenance (O&M) implications. Shortly after, responses started coming in. Quebec Region, like the others, is enthusiastic about using products which are less harmful to the environment. It said, "Les objectifs du programme sont très louables et, en tant qu'organisme impliqué dans l'environnement, nous devrions aller au-delà de la simple recherche du meilleur produit de consommation et réévaluer notre niveau de consommation." The Visitor Activities Branch, under the coordination of Dave Huddlestone, is compiling an ongoing comprehensive list of the ideas and initiatives submitted by all five regions. The list will be forwarded to the ECP staff. Accompanying the list will be a request for advice as to directions the Branch might consider to advance the work of the ECP at low or no cost to the CPS. The list to date is attached as **Appendix D**.

5.3 The Role of Cooperating Associations

To date, cooperating associations have taken a variety of measures concerning environmental purchasing decisions, apparently all on an ad hoc basis. These efforts have included buying paper or 'biodegradable' bags instead of plastic ones, selling products with a minimum of packaging and using reusable dishes instead of disposable ones.

Cooperating associations could be encouraged to support the use of environmentally less harmful products in a number of ways. These suggestions were submitted as a result of the request for examples of less environmentally stressful practices.

All items stocked and sold through such associations should be evaluated for the environmental effects. Wherever possible, products harming the environment the least should be sold, in the place of others. One example is the stocking of bio-degradable soaps and shampoos, in the place of those with high chemical or phosphate content. Another would be to sell enamelled plates and cups instead of disposable ones.

Cooperating associations can be encouraged to substitute less harmful products for more wasteful ones in their public programs. For example, when hot drinks are provided during a program, visitors should be encouraged to bring their own mugs, and for those who forget, a supply of plastic reusable or paper mugs should be made available instead of styrofoam.

Associations are a valuable tool in developing public awareness. This can be achieved in numerous ways, for example: developing public service announcements, information sheets, buttons, etc.

As with the parks, cooperating associations should involve themselves in existing community recycling programmes wherever possible.

6.0 OPPORTUNITIES FOR MAKING MORE ENVIRONMENTALLY APPROPRIATE PURCHASING CHOICES

After determining which products are bought by the CPS, and how much is spent on each, it is possible to compare this data to those categories already accepted into the ECP and to those products identified by staff as potential candidates for environmentally less harmful replacements. The result is an extensive list of goods, on which annual expenditures are substantial. There are many opportunities, it appears, for the Service to make more appropriate environmental choices, especially in light of the importance being accorded to sustainable development principles. A logical starting place would be with those products now available, or soon to be made available, through the ECP. It must be emphasized here, however, that if the CPS wants to be a leader it must attempt to use environmentally less harmful products everywhere; not just those products on which expenditures are high or which are visible to the public.

6.1 Methodology

In order to determine where the CPS spends funds, it was necessary to consult regional summaries by line object and authority code (Statement #09633). Only the purchase of goods was examined. Because of time constraints, and since the bulk of products bought fell under certain groups, only specific line object groups and authority codes were used. These were determined in consultation with the Finance Branch. The former were limited to:

- 17 (Equipment Purchased and Repairs, excluding 1748 and 1750);
- 20 (Purchased Materials);
- 21 (Parts and Consumable Tools and Small Equipment); and
- 23 (Equipment Aquisitions).

The authority codes used were limited to:

- 101 (Other Operating Expenditures);
- 117 (Store Operations O&M);
- 120 (Forest Fire Supression); and
- 201 (Capital Expenditures).

As a result, those products expenditures falling under other groups have not been considered. The data does, however, encompass all the major purchases (goods only), providing a clear idea of just what is bought. This procedure was followed for four fiscal years, from 1985-86 to 1988-89. For each year the purchases were sorted by expenditure. An example of the data sheets used is attached as **Appendix E**.

Once the products purchased were sorted by monetary expenditure, it was possible to compare expenditures from year to year. While overall costs varied slightly, this appeared to bemostly attributed to inflation rather than large differences in amounts purchased. This conclusion was drawn from the fact that the relative position of the products (in terms of amounts spent) changed very little from year to year. For example, if road salt was the eighth largest expenditure in 1986 it was also about the eighth largest in 1989. The one big exception was the electronic data

processing equipment (EDP), which jumped drastically in the later years as a result of the installation of the Departmental Office Technology System (DOTS), service-wide.
Data was also compiled by region. It was immediately apparent that some regions bought more of certain products than others, however no further steps were taken to interpret the numbers. The main reason for not doing so was that the concept of making environmentally conscious purchasing choices is one which should be applied at all levels and regions, regardless of the size or amount of the purchase.

6.2 Opportunities Identified

For the purposes of discussion, a number of products are identified as potential starting points when attempting to make appropriate environmental purchasing choices. Those chosen represent expenditures of over $50,000 (1988-89 F/Y), and have one of two characteristics. They are either products which have corresponding categories already approved by the ECP or products which have been identified by staff members concerned about their negative effect on the environment. It must be stressed that many more products need to be evaluated; even those products which appear not to be environmentally harmful, when examined from 'cradle-to-grave', may be quite unsound.

The chart below (**Chart 2**) lists those products identified for discussion purposes, along with selected characteristics. In some instances different line objects have been grouped together in order to fully appreciate the significance of related products (ie. vehicles and gasoline).

Chart 2. Selected Characteristics of Certain Line Objects (CPS 1988-89 F/Y)

DESCRIPTION	LINE OBJECT	RANK IN TERMS OF OVERALL EXPENDITURES	% OF TOTAL PRODUCT EXPENDITURES	AMOUNT SPENT ($000)
Road Motor Vehicles	2371	Second	8.5	3,522.8
Automotive Gasoline	2014	Fourth	4.3	1,759.8
Wood Fab. Mat. (Plywood, Lumber, etc.)	2020	Fifth	4.0	1,662.1
Stationery & Office Supp. & Stat. Clearing	2054	Tenth	2.5	1,040.4
Road Motor Vehicles	2146	Twelfth	2.0	820.5
Diesel Oil	2012	Thirteenth	1.9	795.3
De-Icing Salt	2032	Fifteenth	1.6	672.6
Paint & Related Paint Products	2068	Sixteenth	1.6	648.8
Road Motor Vehicles	1746	Seventeenth	1.3	556.6
Toiletries, Cleaning Prep. House. Chem.	2042	Twenty-second	1.0	433.4
Other Fuel, Oil, Grease & Solvents	2018	Thirty-fourth	0.7	300.7
Rubber Tires & Tubes	2147	Fourty-third	0.6	263.8
Miscellaneous Vehicles	2372	Fourty-fourth	0.6	260.9
Printed Matter (Library Stock)	2051	Fiftieth	0.5	226.8
Miscellaneous Vehicles	2148	Fifty-fifth	0.5	206.2
Heating, Air Cond. & Refrig. Equip.	1711	Fifty-ninth	0.5	189.2
Plastic Bags- Sheeting	2025	Sixty-second	0.4	184.9
Gardening Supplies	2069	Sixty-third	0.4	181.7
Lawn Mowers	2338	Sixty-eighth	0.4	164.1
Heating, Air Cond., & Refrig. Equip.	2313	Seventy-first	0.4	161.5
Heating, Air Conditioning & Refrig. Equip.	2111	Seventy-third	0.4	157.5
Batteries	2118	Eightieth	0.3	123.4
Crude Animal & Veg. Products- Inedible	2010	Eighty-seventh	0.3	108.6
Miscell. Vehicles-Not Elsewhere Spec.	1747	Ninetieth	0.2	96.4
Outboard Motors	2337	Ninety-eighth	0.2	86.6
Roofing Materials	2033	Ninety-ninth	0.2	86.4
Paper & Paperboard	2021	One hundred and fourth	0.2	78.8
Photocopy Paper & Chemicals	2058	One hundred-fifteenth	0.1	59.4

*****One hundred and eighty-eight line objects were listed. The total product expenditures for the object groups and authority codes listed in Section 6.1 is $41,615,800.00.

Road motor vehicles (line object 2371) consistently placed second or third in terms of total expenditures during the last four fiscal years; with the amount spent on these products varying between $2.5 and $3.5 million per year. In fact, during the 1988-89 season, this line object accounted for 8.5 per cent of the total product expenditures. If one is to consider other vehicle-related costs (gas, oil, replacement parts) this percentage rises even more dramatically. Automotive gasoline was identified as being between the third and fifth largest expenditure, with about $1.7 million being spent on this product each year. The purchase of additional road motor vehicles and automotive parts fall under two other line objects, 1746 and 2146. These too are large expenditures, ranging from ninth to twentieth in terms of total amounts spent. Between $0.2 and $0.3 million are spent each year on miscellaneous vehicles. Quebec Region, when asked to submit "environment-friendly" ideas, said staff buying gas powered vehicles or machinery should insist on those products using unleaded fuel. The CPS could, in fact, take this suggestion one step further by considering alternatives to gas. One example comes from another staff suggestion - the use of electric outboard motors in the place of those which use gas. Another possibility is the use of propane-powered road vehicles. As the prominence of global warming and acid rain increase, the Service has the chance to take a leading role in setting an example for the entire Canadian population.

About $0.8 million per year is spent on diesel oil, ranking it seventh to thirteenth in terms of total expenditures. Of the four years studied, 'other fuel, oil, grease and solvents' came up thirty-ninth on average. The amount spent on these products varied between $0.2 and $0.3 million per year. Since there is an ECP category which addresses rerefined lubricating oils, any such products bought should be endorsed by the Program.

Wood fabricated materials, such as plywood and lumber, represent a very major CPS expenditure. Ranking fifth or sixth overall, between $1.3 and $1.7 million is spent on such products yearly. There is an ECP category dealing with construction materials made from wood-based cellulose fibre, however the only sub-category identified to date has been thermal insulation. Staff could, where warranted, submit ideas for new sub-categories. Two regions identified concerns about the effects of wood preservatives on the environment, and expressed a desire to find less harmful alternatives (such as using un-treated cedar). There is not yet an ECP category addressing wood preservatives, however if environmentally less harmful products are available on the market, the CPS could consider submitting a category proposal to the Program.

The line object 'paint and related paint products', under which applied wood preservatives fall, has two related categories in the ECP. These deal with both water-based and solvent-based paints. Since these products represent a fairly major expenditure for the CPS - betwen eleventh and sixteenth in terms of total expenditures, with $0.6 million being spent on these products each year - the service should aim to use those paint products endorsed by the ECP, when such endorsements occur. In addition, care must be taken to properly dispose of any remnant paint products used. They should not simply be dumped in a landfill site, where the possibility exists that they could leach down to the water table.

Stationary and office supplies are about twelfth in terms of total expenditures. Between $0.6 and $1.0 million are spent on such supplies each year. In addition, about $0.2 million is spent per

year on printed matter (library stock). Paper and paperboard, photocopy paper and chemicals are all also worthy of mention. As there is an ECP category addressing recycled fine paper, those products endorsed by the Program should be used to the greatest extent possible. In addition, any newspaper tabloids used in national parks should be printed on recycled paper. There is an additional ECP category dealing with newsprint from recycled paper. Numerous staff suggestions support the use of such products; the use of recycled products was mentioned by each region. As identified in **Section 8.0**, there is currently a supply/demand problem with recycled paper. In an effort to alleviate the problem, staff would like to see these products used, even if it means paying a premium. Paper products are one of the most visible products of the Service, making it doubly important to make appropriate environmental choices in this domain.

Air conditioning and refrigeration equipment has been identified as an area of concern because of the ozone-harming Clorofluorocarbons (CFC's) and Freon gas. These two products, along with heating equipment (line objects 1711, 2313 and 2111), account for about $0.5 million per year, making them an important expenditure. While there are currently no ECP guidelines addressing these products (except for home ventilators using heat recovery), the Service can make an effort to find and use environmentally less harmful technologies.

De-icing salt is between twelfth and seventeenth in total expenditures, at a cost of between $0.5 and $0.7 million per year. The effects of all this salt on the natural and built environments has been identified as a concern of some regions. Although not yet an ECP category, environmentally less harmful road salts are being created, and are already in use in some Canadian municipalities. While these products are currently about three times the price of road salt, community leaders are starting to consider the long-term effects of corrosive materials on roads, bridges, cars and the hydrologic cycle. By spending more in the short-term to reduce corrosion, the eventual economic gains may be greater than if the money had to be spent on infrastructure later. The Service could investigate the performance of these new products, and, if suitable, submit a proposal for a new product category. Furthermore, in supporting such new products, the Service is creating a market. This enables the producer to reduce his prices, thus making his product available to a wider range of clients. Such markets also encourage the development of more 'environmental industries'.

Household chemicals and cleaning preparations have been identified as a concern of staff members. Between twenty-first and twenty-third in terms of total expenditures, the purchase of these products consumes about $0.4 million per year. Environmentally less harmful products are available, and have even been tried in the service. Unfortunately, to date, such products have often proved unacceptable to employees. It should be determined exacly why the products were unacceptable. Alternatives to environmentally harmful cleaning agents should be continually sought.

Rubber tires, plastic bags, gardening supplies, batteries and crude animal and vegetable products (inedible) can also be examined in a similar fashion. The opportunities for the CPS to make more appropriate environmental purchasing choices are numerous. For this reason, the Service should initially use the ECP categories and the concerns of CPS employees as a basis when beginning to consider alternative products.

A study of the products bought by the CPS shows that many of the top expenditures (by $) fall into ECP categories or have been identified by staff members as areas of environmental concern. These products provide a logical starting place when considering purchasing alternatives. It will be necessary to consider, when contemplating such alternatives, supply/demand questions, costs and implications, and the mechanisms in place to determine if purchasing choices are appropriate. In cases where no purchasing alternatives are available, the CPS should consider the viability of eliminating such purchases.

Further studies should be undertaken to examine how environmentally less harmful products can fit into CPS contracting procedures. Processes should also be examined for their 'environmental friendliness'. Possible connections between the Environmental Assessment Review Process (EARP) and the environmental effects of products and processes should be explored. Financial data should also be studied in further detail, as it is necessary to have a solid understanding of the implications of the Canadian Parks Service's role in economic development.

7.0 CONCLUSIONS AND RECOMMENDATIONS

After studying the framework of the ECP and government purchasing principles, and keeping in mind the government's committment to sustainable development, it appears that the CPS is ideally positioned to contribute to the DOE's environmental protection mandate by using environmentally less harmful products. This idea is strengthened by the fact that many employees are undertaking what are perceived to be "environment-friendly" initiatives on their own, with little or no consistency throughout the Service.

1. **The CPS should develop a policy regarding the use of environmentally less harmful products.**

2. **Because the CPS is bound in its actions, to an extent, by the Treasury Board and SSC, it must continue to encourage them to develop their own policy direction. The adoption of such policy is critical to the success of any initiatives undertaken by the Service.**

The ECP uses a systematic process to identify and endorse products considered to be environmentally less harmful than other products serving the same function. Standards are developed for each new product category, ensuring that products submitted for attestation are evaluated in a careful, rather than haphazard, manner. By using goods endorsed by the ECP, the CPS is much less likely to find itself using products whose environmental effects are questionable or controversial (such as biodegredable garbage bags). In doing so, the Service will also be encouraging and promoting the ECP, components essential to the Program's success.

3. **The CPS should use those environmentally less harmful products which are endorsed by the ECP in place of other products whenever appropriate.**

The CPS will benefit in a variety of ways. Not only will the Service's conservation mandate be further enhanced, but given its visibility, the CPS will also be perceived as assuming a pro-active (rather than reactive) role, vis-a-vis sustainable development. The purchase of environmentally less harmful products within the Service will also encourage SSC to change its purchasing policies.

4. **The CPS should use its interpretation and extension programs to further promote the use of environmentally less harmful products as a component of sustainable development.**

5. **The Service should also hold awareness sessions on environmentally less harmful products and the ECP for purchasing staff. In fact, such sessions should be extended to those people who are the end users of the purchased material in order to build consciousness of the current environmental situation and to identify how individuals can contribute.**

6. **All requisitions should include a clause indicating that environmentally less harmful products should be given preference, as should those whose manufacturing process is deemed to be less environmentally harmful.**

A study of the products bought by the CPS shows that many of the top expenditures (by $) fall into ECP categories or have been identified by staff members as areas of environmental concern. These products provide a logical starting place when considering purchasing alternatives. It will be necessary to consider, when contemplating such alternatives, supply/demand questions, costs and implications, and the mechanisms in place to determine if purchasing choices are appropriate. In cases where no purchasing alternatives are available, the CPS should consider the viability of eliminating such purchases.

7. **Further studies should be undertaken to examine how environmentally less harmful products can fit into CPS contracting procedures. Processes should also be examined for their 'environmental friendliness'. Possible connections between the Environmental Assessment Review Process (EARP) and the environmental effects of products and processes should be explored. Financial data should also be studied in further detail, as it is necessary to have a solid understanding of the implications of the Canadian Parks Service's role in economic development.**

SELECTED BIBLIOGRAPHY

Canadian Environmental Advisory Council (CEAC). Canada and Sustainable Development. (Ottawa: Minister of Supply and Services, 1987)

Canadian General Standards Board. General Information Kit.

Canadian Parks Service (Socio-Economic Branch). Canadian Parks Service Policy on Sustainable Development (Draft). October 1989.

Douglas, Debra E., ed. How to Sell to Governments in Canada. (Don Mills: Corpus Information Systems, 1984). pp. 1 - 55.

Environment Canada. EcoLogo, the Environmental Choice Newsletter. (Toronto: Environmental Choice), Issues #1, #2 and #3.

-------- (Corporate Policy Group). From Cradle to Grave: A Management Approach to Chemicals. (Ottawa: Minister of Supply and Services, 1986).

--------. The Green Plan. (Ottawa: Minister of Supply and Services, 1990).

Minister of Supply and Services Canada. Selling to Government: A Guide to Government Procurement in Canada. (Ottawa: Canadian Government Publishing Centre, 1989). pp. 1 - 66.

Parks Canada. Parks Canada Policy. (Ottawa: Minister of Supply and Services, 1983).

World Commission on the Environment and Development (WCED). Our Common Future. (New York: Oxford University Press, 1987).

APPENDIX A: BRIEFING NOTES

Briefing Note On:

Date:
Author of Note:
Register #:
Source of Suggestion

Introduction: In preparing all Briefing Notes, the author will:

a) Consider the entire life cycle of products, processes, services and packaging.

b) For products made from recycled material compare the use of primary and secondary material on the above parameters.

1. Overview

Description of the Proposed Product Category. Brief summary of the context. Why is this proposed product category important? What is the significant environmental benefit resulting from the approval of the product or process? What will be the economic impact of any changes resulting from approval. Where does this product or process fit in the "life cycle".

2. Market Parameters

What is the product or process and how does it fit in the marketplace? What major products or processes compete with this one? What is the manufacturing volume (domestic and exports)? What is the market penetration (current and projected) of this product?

3. Environmental Parameters (including manufacturing use and disposal)

a) **Biological Effects**

i) on human health (including occupational health and safety);
ii) potential impact on representative terrestrial and aquatic flora and fauna; and
iii) potential impact on critical aquatic and terrestrial habitat areas.

b) **Resource Issues**

i) renewable or non-renewable resource;
ii) energy consumption during manufacturing; and
iii) occupational health and safety factors during manufacturing.

c) **Physical Impact on the Environment**

i) thermodynamic impact, including hydrology; and
ii) physical changes to the landscape, including water bodies.

d) **Chemical Effects**

i) toxic chemicals released to the environment by processing; and
ii) "downstream" impact of these chemicals on the biosphere, including possible synergistic effects.

4. Social and Economic Effects

What are the potential effects on employment, both total and in terms of regional/sectorial shifts? What is the potential effect on international markets or relations?

5. Recommendations

Direction to be given to C.T.C. relative to the proposed environmental category guideline:

a) Identify if further information or research is required, and specify in which areas.

b) What options exist? What are the advantages and disadvantages of each? What are the changes at the margin.

c) Are there existing or proposed regulations at the federal or provincial level? Is there an existing national standard? Are there industry associations relevant to this product or process?

d) Other comments?

6. References

Give the specific sources of information used in preparing these briefing notes.

Source: Detail design of ECP - DRAFT, July 1989, Appendix I

APPENDIX B: GOVERNMENT PURCHASING AND THE CPS

This appendix briefly examines the procedures involved in government purchasing; especially those which could impact on, or be affected by, the ECP. In determining the CPS's role vis-à-vis the ECP, it is imperative to consider where SSC fits in the Service's procurement system.

Most federal government purchasing is directed through, and administered by, SSC. Individual departments do, however, purchase on their own behalf. For example, the CPS can, when purchasing goods costing less than $500, buy directly from suppliers. Anything over this amount, though, must be bought through SSC. The latter is also the sole purchaser for printing and publishing, equipment maintenance and repair, temporary help services and services for public exhibitions (Minister of Supply and Services Canada (MSSC), 1989, p.35,43).

Three major purchasing principles apply when buying goods or services for the federal government. These are:

> -to achieve best value purchasing;
> -to ensure fairness in spending public funds and the efficient operation of the procurement system; and
> -to attain national socio-economic policies and objectives, where appropriate. (MSSC, 1989, p.35)

Various acts and regulations direct government buying. Of these, the Financial Administration Act (revised, 1985) and the DSS Act (revised, 1985) are the most important. The 1987 Government Contracts Regulations and Treasury Board Contracts Directives are also major guiding documents. The Canada-United States Free Trade Agreement Implementation Act and the General Agreement on Tariffs and Trade Procurement Code (GATT) affect some types of government purchasing (MSSC, 1989, p.7). Unless a specific directive is put in place (such as one specifying no purchasing of aerosol cans containing CFC's), there is nothing regulating the environmental soundness of products purchased. It is important to note, though, that the use of environmentally harmful practices and products could be governed by the Canadian Environmental Protection Act.

Choosing the Potential Supplier

The government process of buying goods/services from qualified suppliers begins when a request is made. The user writes up a description of what is needed and gives it to the designated buyer, who then obtains the goods/services on the user's behalf. Bids received are evaluated against predetermined and stated policies, specifications and procedures (MSSC, 1989, p.13-4).

Buyers use qualified source lists when seeking bids. Firms must be registered on these lists if they want to be invited to bid. Supplier's files are reviewed occasionally for quality of work, after-sales service and replies to invitations to bid. Poor performance results in withdrawal from source lists (MSSC, 1989, p.13-4).

There are a number of types of bids (requests for standing offers, sole source, invitation to tender, requests for proposals and requests for quotations); the one selected depends on the urgency of the requirement and the complexity and value of the goods or service. When there are twenty or more suppliers, and a certain type of bid is being used (ie. requests for quotations), a rotational system is often used to select potential suppliers (MSSC, 1989. p.13,34).

The selection of potential suppliers invited to bid can be affected in the following circumstances:

- Canadian based manufacturers or suppliers are chosen when sufficient competition exists and international committments (ie. GATT) have been taken into consideration, and,
- regionally, the Area-Buy policy requires that regional offices buy goods and services as close as possible to where they will be used. There must be adequate local sources to make fair value comparisons.

There are two common methods of communicating government purchasing requirements. The first is advertisements in major newspapers, trade papers or magazines or government publications (SSC Government Business Opportunities). The second is invitations to bid extended to qualified suppliers selected from source lists (by mail, fax, telephone). This is called selective tendering (MSSC, 1989, p.14).

Setting of Standards

Invitations to tender may cite certain product or standard numbers when asking for particular goods or services. In the case of federal government purchasing, these usually refer to Voluntary Consensus Standards set by the CGSB, however others set by the CSA and Underwriters Laboratories are also used (Douglas, 1984, p.12).

The CGSB is the major standards-writing organization of the federal government. Environmental soundness is not examined categorically when developing standards, however the environmental effects of a product or process may be considered informally. Over 350 standards committees, each made up of representatives from the general public, consumer groups, industry, business, governments, and technical and educational institutions, have been responsible for the creation of over 2,000 standards. Such standards:

- provide a clear understanding among purchaser, supplier and producers of what is required or available;
- reduce adversarial and controversial situations;
- establish a legal document to protect all parties;
- facilitate transactions, particularly those involving complex goods and services; and
- encourage fair competition among suppliers, while also equalizing assessment of bids for purchasers.

In addition to developing Voluntary Consensus Standards, the CGSB is active in managing Qualification and Certification Listing Programs. These programs are voluntary; used by manufacturers, suppliers and contractors to show that their products and services conform to a specific standard (MSSC, 1989, p.63-4). The Qualification Listing Program is a product listing service designed to assist governmenment and private sector institutions in obtaining goods and services.

Products verified as meeting specified criteria within a standard are placed on Qualified Product Lists. Certification Listing Programs are developed at the request of a government agency, a manufacturing industry or an industrial association, to have their products tested and their facilities evaluated for conformance to a specified standard of performance. Successful manufacturers and their products are listed on a Manufacturers' Certification Program List, and are then licenced to use the CGSB Certification Mark. These two listing programs serve to ensure reliable sources of supply, speed up the buying process by assisting decision making and improving delivery schedules and provide fair competition among suppliers and producers of goods and services, regardless of their size, name or geographical location.

APPENDIX C: RECYCLED PAPER - A CASE STUDY

In studying the life-cycle of potentially environmentally less harmful products, it is essential to consider economic, as well as environmental effects. A study of the Canadian forestry industry (specifically the newsprint industry) yields a number of economic issues, symbolic of those which often arise when trying to make appropriate environmental choices. While the CPS is not a major purchaser of newsprint (this type of paper makes up only a very small fraction of the paper the Service does buy), this commodity is presented here because it represents an excellent example of the supply and demand issues which surface when considering the purchase of environmentally less harmful products.

While long thought that Canada's forest resources were limitless, this perception is now being questioned. With increasing problems of soil erosion, decreased stocks and monoculture, waste paper recycling is seen as a way of extending forest resources, while also diverting paper from the waste stream and creating jobs. Recycled products are rapidly becoming more attractive to clients who are worried about their corporate image in light of increasing environmental awareness on the part of the general public. However, in the move to recycling, Canadian paper producers face problems of supply, geography, quality, and capital expenditure. Accompanying these is the uncertainty involved in establishing a new market.

All but three per cent of Canadian newspapers are published on virgin newspulp (Montreal Gazette, Dec. 5 1989, p.D1). The reason? Publishers can't buy recycled newsprint. While major dailies argue they are not using recycled paper because of supply problems (cost and quantity), paper producers respond by saying that, until recently, there has never been a sufficient demand for making it. Regardless of whether it should be supply or demand led, recycled newsprint is an example of a product whose time has come. Only eight American (US) mills and one Canadian mill currently make recycled newsprint (Montreal Gazette, Nov. 27 1989, p.B3). For a variety of reasons, the US is far ahead of Canada on this account, recycling about 1.7 million tons (a third of their annual production) per year (La Presse, Oct. 18 1989, p.9).

In Canada, Quebec and Ontario Paper Ltd.'s (Q&O) mill at Thorold, Ont. has an annual production capacity of 310,000 tons - a mere three per cent of the total Canadian newsprint output of nearly 10 million tons (Montreal Gazette, Dec. 5 1989, p.D1)! About 150,000 tons of used newspaper is needed per year to make their 50 per cent recycled product; the bulk of which goes to the mill's owner, the Tribune Co. of Chicago. This leaves little for Canadian newspapers.

A second mill, owned by Atlantic Packaging Products Ltd., is slated to start operations next year in Whitby, Ont. It will have a 135,000 ton-a-year capacity, and is expecting to produce 100 per cent recycled newsprint by October 1990 (Globe & Mail, Nov.24 1989, p.B8). Late in December 1989, Canadian Pacific Forest Products announced that its two largest newsprint mills would be converted into recycling plants. By 1991, the Gatineau, Quebec mill will be producing 438,000 tonnes of recycled newsprint per year, about three-quarters of the mill's total output. The Thunder Bay, Ontario mill will generate about 240,000 tonnes per year - half of that mill's output (Ottawa Citizen, Dec. 21 1989).

Canada's paper giants were recently caught off-guard when 14 US states passed legislation (or have bills pending) requiring recycled newsprint to be used in newspapers (Ottawa Citizen, Dec. 4 1989, p.B7). Mills now face expensive investments they say they can ill afford due to current market conditions. Except for a decision taken in November 1989 by Toronto City Council, whereby only newspapers that use recycled newsprint will be allowed to sell papers from vending boxes on city property (effective Jan. 1, 1991), Canada has no similar legislation (Ottawa Citizen, Dec.4 1989, p.B7). As landfill disposal prices increase, that situation seems bound to change. That the DOE has created guidelines for newsprint from recycled paper (companies meeting the guidelines can apply for the ECP EcoLogo) can only encourage such change. Nevertheless, it will likely be the US markets that drive the paper companies to move. In fact, the move by Canadian Pacific to produce recycled paper is strictly a defensive one, designed to maintain sales in the US.

So why don't more mills recycle newspapers? Those considering it are finding the cost of using recycled fibre less than encouraging. Retrofitting, at a cost of $50 to $100 million, or building a new plant for $400 million, is just the start (Ottawa Citizen, Dec. 4 1989, p.B7). Although companies are now beginning to react to the US legislation, change is impeded by the long lead time needed to build new equipment. The decision to retrofit is further complicated by the realization that such investments will initially generate no new revenue for the company involved, even though money could be saved in both mill and timber-cutting operations. The first firms to change may benefit by picking up new contracts. Because the American laws differ between states, it is even difficult for producers to decide just what percentage of recycled pulp to use.

Expansions of mills using virgin fibre, started in the mid-80's, are just now being completed. These mills can only add their stock to an already saturated market. Profits have been cut in half this past year because of oversupply and weak prices. The poor market conditions even caused the Thorold mill to shut for two weeks in December 1989. A number of other producers will also be taking down-time in an effort to reduce the large supply of newsprint available to be sold.
The Thorold closing clogged the Ontario blue-box system since most recycling companies ship to the Thorold mill daily. North American recycling programs had already been hurt by the drop in the price paid for recycled newsprint. This was, ironically, partly due to the success of these very programs. In 1989, Ontario collected about 200,000 tons of newspaper to be recycled into newsprint - the equivalent of 3.4 million spruce trees. (Toronto Star, no date or page recorded) Supplies of used newspaper have grown, but demand for them has not kept pace. The result is a lack of capacity to generate newsprint from waste newspaper. This oversupply is lowering prices to the point where suppliers are exporting papers at a loss just to get rid of them. Prices have fallen from $65 a ton in 1988 to just $10 this year, although the principle Ontario user has kept the price at $45/ton to encourage a continued supply. The new Whitby mill will initially absorb all the local used newspaper surplus, and may well be the solution to the glut of recycled newspapers collected through the blue-boxes, and is expected to be a major source of supply of recycled newsprint for Ontario papers.

Nearly all existing mills are in northern sites where their source of virgin fibre is. The region likely would not generate enough waste newspaper to keep a recycling plant fully productive, thus it would be necessary to import used newspapers. Not only would this require an additional

storage facility, but the cost of shipping old newspapers from urban sites to the remote ones could be prohibitive. Because virtually all railway cars and trucks which transport newsprint to the US return home empty, newsprint makers anticipate getting discounts on freight rates for old newspapers shipped from US depots to Canadian mills. There would, however, still be an additional cost to the producer.

US newsprint producers are now building recycling plants near cities where the product is used. Canadian producers worry that these "urban-forest" agreements will further depress newsprint prices. Getting old newspapers may be a problem in itself. The cost of this virtually untested supply is unpredicatable. A new factor of volatility, in that a commodity will be dealt with (old newspapers) rather than a known price to bring wood out of the forest, will have to be addressed. Competition to buy old papers will cause pricing to be inconsistent. Because fibre weakens each time it is recycled, it can only be reused three to eight times. As a result, the need for virgin pulp will never be eliminated. Recycling, however, does extend the forest base. De-inking machines may also bring new life to old machines that otherwise might simply be shut down.

Of great concern to Canadian producers is the threat that recycling poses to their share of the US market. That share has already declined from 72% in 1960 to 57% in 1988 (Montreal Gazette, Dec. 5 1989, p.D1). The US is Canada's biggest newsprint customer, importing 70 per cent of output (Ottawa Citizen, Dec. 4 1989, p.B7); if Canada's share in the US market drops any further, the repercussions could be great. As it is, nearly one fifth of US-made newsprint comes from recycling plants; a proportion which will increase in the 1990's as the new laws take effect.

Paper companies are thus coming to grips with the fact that the timing is right for recycling projects. This outlook is indicated by the following statement, made by paper company chairman Adam Zimmerman: "We're in a position to provide our customers with an environmental choice...and it will be the market's choice that will ultimately drive the success of this venture" (Montreal Gazette, no date or page recorded).

Ontario newspaper publishers are receiving so much pressure from the public to use recycled newsprint that they have designed a three point program to boost recycling as much as possible. It is as follows:

- Put up $10 million to expand the province-wide blue box recycling program, to make it easier to collect old papers and keep them out of landfill sites;
- Stimulate demand for recycled newsprint by giving preference in new supply contracts to companies that can provide it; and
- Be more careful about unsold newspapers, to make sure they get recycled instead of thrown away.

(Toronto Star, Nov. 4 1989, no page recorded)

Newspaper publishers are willing to switch to recycled paper once current contracts run out, provided they are guaranteed an available supply. Their main concern about using the product is quality, especially as papers make greater use of graphics and colour pictures. While Q&O has shown its paper is as good as any, Atlantic Packaging is untried. Publishers of leary of the

100 per cent recycled product. Recycled paper also contains leftover impurities that have caused it to tear on high speed presses; a problem which is being eliminiated as technology advances.

Although pulp and paper is a major Canadian industry, Canada still lags behind other countries when it comes to moving towards making recycled newsprint. Because of the US-Canada Free Trade Deal, tarriffs on paper imported from the US will be completely removed by 1991. This will mean that recycled newsprint could become more easily available to Canadian newspaper publishers, thereby increasing the pressure on Canadian paper manufacturers to respond to this changing market. In light of the country's great economic dependence on the production of paper, it is hoped that progress in the Canadian newsprint recycling field will continue, thus contributing to the sustainability of the industry as a whole.

APPENDIX D: LISTS OF LESS ENVIRONMENTALLY HARMFUL IDEAS AND INITIATIVES

Quebec Region has suggested the following practices:

1. White paper is bleached, generating furans and dioxins. Paper companies now make paper whitened using either peroxide or oxygen, which are less environmentally harmful. The CPS should use only this type of product.
2. Insist, when replacing gas-powered machinery, on buying only those products which use unleaded fuel.
3. When maintaining grounds, herbicides should be banned. Only organic methods should be used.
4. Concessions should use environment-friendly cups. In offices, staff should use cups sporting environmental logos, which would be sold to them. In not using disposable cups, the Service would contribute to the objective of reducing waste by 50 per cent.
5. Promote in offices and parks all types of recycling (ie. tires, metal)
6. Freon 134 (once on the market) should replace Freon 12 in all refrigeration systems.

Prairie Office has come up with the following ideas:

1. Composting and other organic gardening techniques should be used to create pesticide/herbicide free gardens.
2. Assure that all cleaning products, paints etc. used are environment-friendly.
3. Hold awareness sessions for Material Management on acceptable environment-friendly products.
4. Where-ever possible use electric motors on watercraft.
5. Use paper cups in concessions - if managed properly, trees are renewable, however foam is an oil product, which is not renewable.
6. Ban the use of aerosols.
7. Paper recycling programs should be encouraged wherever possible; at least at the regional level.
8. Use recycled paper for printing publications and for office paper stocks. This should include all standard government forms.
9. Departmental employees should adopt as a matter of policy two-sided photocopying.
10. Give preference to purchase of items identified as environment-friendly, even if this means paying a premium.
11. Keep DSS up to date on new sources of environment-friendly products.
12. Eliminate the use of wood preservatives.
13. Include the concept of environment-friendly products in EARP (ie. the use of EFP and more environmentally benign practices where possible).
14. Eliminate garbage dumps in national parks.
15. Use friendly road salts.
16. Communicate the concepts of environment-friendly products and environmental stress to employees, visitors, cooperators, contractors, etc.

Atlantic Region has proposed these suggestions:

1. Concessions should only sell soft drinks in biodegradable paper cups or returnable glass containers.
2. Alternatives to aerosol sprays using chloroflourocarbons should be identified.
3. The use of Haylon fire extinguishers should be discontinued.
4. Wherever possible, the CPS should use only recycled paper products.
5. Cedar could be used instead of treated lumber.
6. A pilot project for recycling paper is now underway in the Atlantic Regional Office. In addition, the region's use of handheld computers in doing visitor surveys is expected to save at least 10,000 - 15,000 sheets of paper per year.

Western Region has suggested the following:

1. The adoption of a DOE policy of using recycled paper products, notably for correspondence and other material that goes out to the public.
2. Encourage the practice of double-sided photocopying, and copying two sheets onto one through the use of photo-reduction, a feature available on most machines.
3. The creation of a DOE policy of not using disposable cups of any kind. Reusable plastic cups with lids, such as those available at convenience stores and gas stations, could be distributed to staff members. A private company could be contracted to provide the cups, with a recycling message imprinted on each one.

Ontario Region supplied these ideas, some of which have already been implemented in specific parks:

1. Whenever possible, parks should tie into existing regional or local recycling programs. Point Pelee National Park is actively participating in the county's blue-box program. Georgian Bay Islands and St. Lawrence Islands National Parks are also working with local municipalities and blue-box programs.
2. Concessionaires should be encouraged to use paper products instead of styrofoam.
3. Using less harmful cleaning products should be encouraged. Attempts to use organic products have not always proved acceptable to employees in the past, however continued exploration of possibilities should continue.

APPENDIX E: CPS PRODUCT EXPENDITURES IN DECREASING ORDER ($000)
1988/89

DESCRIPTION	LINE OBJECT	NCR	ATLANTIC	QUEBEC	ONTARIO	PRAIRIE	WESTERN	PROGRAM
General Stores Purchases (Exclu. Uniforms)	2076	188.1	899.8	316.3	638.7	417.6	3,267.1	5,727.6
Road Motor Vehicles	2371	0.0	647.7	309.7	497.0	525.6	1,542.8	3,522.8
Other-EDP Equipment	2357	2,567.2	49.9	50.1	13.1	3.3	21.2	2,704.6
Automotive Gasoline	2014	1.9	367.0	221.8	294.4	249.9	624.8	1,759.8
Wood Fab. Mat. (Plywood, Lumber, etc.)	2020	5.5	471.7	271.7	443.8	220.8	248.6	1,662.1
General Purpose Industrial Machinery	2301	962.6	52.3	19.7	149.3	104.5	19.1	1,307.6
EDP-Peripherals	2359	1,001.0	12.2	47.0	75.2	0.0	10.4	1,145.8
Miscell. Prod. Not Elsewhere Specified	2070	36.1	358.0	107.9	76.2	270.6	265.3	1,114.1
Other Equipment	2347	22.2	205.7	42.2	64.6	233.3	491.5	1,059.4
Stationery & Office Supp. & Stat. Clearing	2054	145.5	145.4	95.5	159.0	166.6	328.4	1,040.4
EDP Equipment-Hardware & Software	1735	563.2	51.9	49.3	60.0	58.7	65.3	848.4
Road Motor Vehicles	2146	0.0	169.3	21.3	65.8	114.7	449.3	820.5
Diesel Oil	2012	0.0	91.4	51.7	28.4	89.6	534.2	795.3
Hardware	2071	12.4	198.2	75.4	135.0	146.2	167.9	735.0
De-Icing Salt	2032	0.0	151.1	3.4	3.3	20.0	494.8	672.6
Paint & Related Paint Products	2068	3.8	150.7	70.9	73.5	55.5	294.4	648.8
Road Motor Vehicles	1746	0.0	173.4	96.1	76.2	89.2	121.7	556.6
Special Industrial Machinery	2303	0.9	12.5	10.0	7.1	56.1	441.0	527.7
Heating Oil	2011	0.0	253.8	30.3	42.1	175.4	18.9	520.5
EDP Software Packages	2361	397.4	9.6	13.7	2.1	56.3	22.6	501.6
Plumbing Equip. & Fittings	2113	0.4	161.6	20.5	44.5	62.7	207.0	496.7
Toiletries, Cleaning Prep. House. Chem.	2042	0.0	115.9	53.9	49.2	51.2	163.2	433.4
Stocked Items & Other Off. Supp.-From SSC	2048	142.5	90.4	52.7	57.7	34.4	37.0	414.7
Propane Gas & Natural Gas	2013	0.0	10.0	12.0	21.6	90.1	276.4	410.1
Voice Communication Equipment	2352	0.0	24.0	19.7	67.5	268.1	12.4	391.8
Ships, Boats & Related Equipment	2365	72.3	31.0	24.2	113.9	122.0	27.7	391.2
Iron, Steel & Alloys (Chain & Wire Rope)	2028	0.1	87.9	76.6	114.8	37.4	56.1	372.9
Office Furniture & Furnishings	2333	109.7	21.9	138.7	37.8	37.4	23.2	368.6
Firearms, Weapons & Ammunition	2062	0.0	6.8	3.9	3.0	9.7	327.6	351.0
Other Furniture & Fixtures	2348	17.0	115.7	37.2	87.6	23.0	68.0	348.4
Electronic Measuring & Testing Equip.	2320	3.0	8.1	2.5	15.1	15.3	303.9	347.9
Other Elec. Equip. & Appliances	2116	1.6	109.1	12.4	17.7	72.0	113.0	326.0
Photographic & Audio-Visual Equipment	2335	92.1	19.4	51.6	56.7	43.5	43.2	306.6
Other Fuel, Oil, Grease & Solvents	2018	0.1	27.3	21.6	35.9	97.3	118.5	300.7
Hand Tools & Cutlery	2126	3.2	53.1	60.8	69.9	44.4	64.7	296.1
Elect. Lighting, Dist. & Control Equip.	2114	1.0	95.5	61.9	65.2	15.3	44.7	283.6
Chemicals & Related Products	2023	4.7	80.3	23.4	30.7	67.7	74.9	281.6
Meas, Monit, Cont., Lab., Med. & Opt. Inst	2322	69.8	22.0	44.3	29.2	21.1	95.3	281.6
Protective Clothing	2040	1.5	53.4	29.6	59.5	42.4	93.3	279.7
Exhibits & Display Material	2037	2.7	49.2	4.1	158.6	44.8	15.3	274.7
Photographic Goods	2060	52.3	44.6	41.0	42.6	46.4	47.0	273.9
Uniforms	2039	9.1	43.7	27.8	64.6	37.9	89.9	273.0
Rubber Tires & Tubes	2147	0.4	61.4	26.7	20.0	37.0	118.2	263.8
Miscellaneous Vehicles	2372	0.0	39.0	57.4	19.8	110.8	33.9	260.9
Food Material & Food Preparations	2002	0.0	14.9	5.1	10.9	134.3	93.5	258.7
Crude Woods Material (Firewood)	2008	0.2	39.6	56.8	37.0	45.6	74.1	253.4
Safety Equip. & Alarm & Signal Systems	2331	1.9	8.7	50.9	102.6	6.6	74.0	244.6
Textile Fabricated Material	2022	104.8	50.7	6.1	25.1	13.8	40.4	241.0
Firefighting Equipment	2329	0.0	42.6	8.0	38.9	18.5	123.5	231.5
Printed Matter (Library Stock)	2051	67.0	37.5	31.2	34.9	27.9	28.3	226.8
Household & Office Furnishings	2044	25.3	54.9	17.0	16.3	40.3	67.9	221.7
Jet Fuel	2016	0.0	0.0	0.0	(0.1)	214.3	1.6	215.7
EDP Equipment	2135	77.5	32.6	24.0	32.8	23.6	17.9	208.5
Data Processing Supplies	2059	61.8	44.9	18.9	20.6	10.2	51.8	208.2
Miscellaneous Vehicles	2148	0.0	27.1	11.2	19.1	7.2	141.7	206.2
Top Soil, Sand & Gravel-Outside Suppliers	2006	0.0	18.1	94.6	55.1	14.6	17.8	200.1
Other Equipment	2128	0.5	68.8	19.4	29.1	36.8	45.5	200.0
Reproduction	2073	20.8	24.3	11.4	4.4	125.2	6.5	192.7
Heating, Air Cond. & Refrig. Equip.	1711	5.7	36.1	43.9	33.5	48.0	21.9	189.2
Camera & Aud.-Visual (Inc. Aud-Vis. Bulbs)	2065	0.6	30.5	5.2	26.7	24.9	100.9	188.7
General Purpose Industrial Machinery	2104	0.3	5.0	4.7	65.3	6.7	105.8	187.9
Plastic Bags- Sheeting	2025	1.3	73.7	15.9	41.3	7.1	45.6	184.9
Gardening Supplies	2069	0.1	30.3	15.5	36.0	13.8	86.0	181.7
Metal Fab. Basic Products (Locks, Keys)	2030	1.6	14.4	16.0	46.8	10.1	90.5	179.6
Telecommunication Equipment	2136	10.4	11.8	5.7	3.8	2.6	142.9	177.3
Telecommunication Equipment	1734	2.2	25.8	15.4	42.7	39.1	42.6	167.8
Asphalt	2017	0.0	3.4	1.2	1.5	21.3	136.9	164.4

CANADIAN PARKS SERVICE

PRODUCT EXPENDITURES IN DECREASING ORDER
($000)
1988/89

DESCRIPTION	LINE OBJECT	NCR	ATLANTIC	QUEBEC	ONTARIO	PRAIRIE	WESTERN	PROGRAM
Lawn Mowers	2338	0.0	28.6	5.7	39.2	59.8	30.8	164.1
Agricultural Tractors	2370	0.0	0.0	31.5	71.1	53.0	6.2	161.9
Signs	2090	0.0	33.6	29.6	31.8	11.1	55.5	161.6
Heating, Air Cond., & Refrig. Equip.	2313	8.7	57.5	25.2	6.2	51.7	12.1	161.5
Safety & Sanitation Equip.	2124	0.1	21.5	24.7	34.9	44.1	32.7	158.0
Heating, Air Conditioning & Refrig. Equip.	2111	0.0	65.1	13.8	10.4	28.8	39.3	157.5
Image, Video & Other Communication Equip.	2351	9.6	36.1	15.9	23.2	50.8	21.7	157.3
Works of Art, Collectors Items & Artifacts	2074	3.6	10.6	27.9	89.0	17.3	6.9	155.2
Cement	2031	0.3	27.9	26.8	60.1	16.0	19.8	150.9
Grader Blades	2127	0.0	6.4	0.0	0.0	8.6	127.1	142.1
Saf. & Sanit. Equip. or Alarm & Sig. Sys.	1719	0.0	48.2	22.1	4.3	21.7	45.5	141.9
Camera & Audio-Visual Equipment	1725	15.2	10.5	16.8	8.7	56.8	31.6	139.6
Other Electric Equipment & Appliances	2317	1.1	5.7	15.1	14.3	50.7	52.0	138.9
Batteries	2118	0.4	14.1	8.7	22.8	29.2	48.3	123.4
Furniture & Fixtures	1722	9.3	12.1	23.3	0.6	5.1	67.9	118.3
Furniture & Fixtures Purchased from SSC	2334	5.6	27.7	11.3	45.5	20.8	7.5	118.3
Marine Equipment	1741	55.1	4.1	6.1	25.7	23.0	3.3	117.4
Electric Light., Dist. & Control Equip.	1713	0.8	28.3	25.8	11.3	11.2	37.3	114.8
Other-Inedible Crude Material	2009	0.0	59.2	2.0	2.1	7.0	41.0	111.2
Aviation Gasoline	2015	0.0	2.1	1.9	0.0	97.5	8.7	110.1
Crude Animal & Veg. Products- Inedible	2010	0.0	33.0	9.6	19.1	19.9	27.2	108.6
Drafting & Art Supplies	2055	10.1	33.2	11.2	19.1	16.8	15.9	106.3
Scientific Equipment	2321	56.1	15.9	0.0	4.9	11.4	13.8	102.0
Miscell. Vehicles-Not Elsewhere Spec.	1747	0.5	65.8	6.1	4.0	8.0	12.1	96.4
Chlor., Ox., Nitro. & Acety. (Carb. Diox.)	2027	3.3	12.5	4.9	11.4	3.5	59.6	95.2
Gardening & Landscaping Equipment	1727	2.1	32.0	1.1	7.6	25.6	24.2	92.6
General Electronics Equipment	2117	0.7	69.5	1.7	2.8	2.3	15.0	92.1
Electronic/Automated Office Sys. Equipment	2358	0.0	26.8	21.4	0.0	8.0	32.4	88.6
Generators	2315	0.0	4.8	2.1	9.3	17.5	54.1	87.9
Software Packages Under $500	2139	28.7	11.8	13.4	16.6	4.1	12.8	87.5
Firefighting Equipment	1720	0.0	14.8	5.4	10.9	26.3	29.5	87.0
Outboard Motors	2337	0.0	10.2	13.7	16.5	32.3	14.0	86.6
Roofing Materials	2033	0.0	28.7	1.0	11.6	28.7	16.5	86.4
Subscriptions	2082	4.8	18.1	22.4	11.4	16.8	13.0	86.4
Other Equipment	1728	1.4	21.9	15.8	15.5	8.6	19.2	82.5
Recreation Equip., Toys, Games	2043	0.0	9.1	15.4	8.5	12.1	35.0	80.2
Ships & Boats	1740	9.8	3.7	33.3	20.2	4.7	8.3	80.1
Paper & Paperboard	2021	4.1	5.0	7.8	26.8	11.1	23.9	78.8
Fodder & Feed	2004	0.0	3.1	0.5	0.9	9.3	57.0	70.8
Meas., Control., Lab., Med. & Optical Inst	2122	0.7	32.9	5.1	14.9	5.8	11.0	70.5
Ships & Boats	2140	0.0	1.5	28.8	25.4	6.3	8.4	70.4
Other Elec. Equip. & Appliances	1714	0.2	10.1	4.7	8.0	5.9	40.1	69.0
Special Industry Equipment	2106	3.3	1.8	1.1	5.1	4.9	52.3	68.5
Marine Equipment	2141	3.9	6.3	17.1	25.1	10.9	1.8	65.1
Scientific Equipment	2121	0.8	21.1	1.8	19.0	1.0	19.3	63.0
Other Laboratory Supplies	2120	23.6	22.6	0.1	1.7	7.6	5.9	61.4
Service Industry Equipment	2332	4.4	3.4	2.3	1.7	0.5	48.7	60.9
Elect./Auto. Non-Prog. Off. Sys. Equip.	1736	1.5	10.1	25.0	8.5	8.1	7.2	60.4
Photocopy Paper & Chemicals	2058	3.2	10.2	15.0	6.6	17.2	7.2	59.4
Water & Sewage Pumps	2330	0.0	13.2	13.8	21.3	5.6	5.4	59.3
Conveying, Elev., & Mat Handling Equipment	2302	0.0	0.0	51.1	0.0	5.4	1.2	57.6
Agricultural Machinery & Implements	2304	0.0	2.5	5.7	6.0	21.1	22.0	57.3
Oversnow Vehicles	2149	0.0	10.1	9.4	12.6	10.5	13.7	56.3
Top Soil, Sand & Gravel-Other Depts	2007	0.0	0.7	1.3	0.5	0.6	51.5	54.6
Glass	2034	0.6	8.7	3.1	14.8	14.8	12.3	54.4
Electronic/Automated Office Systems Equip.	2137	1.8	2.6	10.7	4.2	3.9	29.7	53.0
Other Office Machines & Equipment	2362	2.5	14.2	0.1	7.3	17.9	10.9	52.9
Electric Lighting, Dist. & Control Equip.	2316	0.0	9.5	31.8	8.5	2.4	0.0	52.2
Electronic Equip. Other than for Off.Sys.	1715	5.9	26.6	0.0	3.5	6.4	9.4	51.8
Petty Cash Purchases	2083	3.5	2.8	6.0	24.6	3.2	11.5	51.7
Footwear	2041	0.0	13.1	9.2	8.2	10.0	9.8	50.3
Insulation	2035	2.7	4.8	10.0	7.9	21.3	1.4	48.1
Towels & Bathing Suits	2036	0.0	0.3	0.1	0.2	0.0	46.7	47.4
Conveying, Elevat. & Mat.-Handling Equip.	1702	0.2	3.1	3.3	3.0	0.0	37.4	47.0
General Purpose Industrial Machinery	1701	0.1	16.8	7.9	8.3	6.3	7.4	46.8
Other Office Equipment	2138	1.5	12.9	6.0	6.2	7.2	12.4	46.2
Photographic Equipment	2129	9.2	2.7	6.2	7.4	4.6	14.3	44.5
Message, Data & Computer Communica. Equip.	2354	0.0	0.0	5.2	3.3	3.1	32.1	43.8
Scientific Equipment	1717	0.2	29.3	0.1	0.4	0.6	11.1	41.8
Food for Parks Field Crews	2005	(0.1)	1.1	0.1	1.3	11.8	26.2	40.5

CANADIAN PARKS SERVICE

PRODUCT EXPENDITURES IN DECREASING ORDER
($000)
1988/89

DESCRIPTION	LINE OBJECT	NCR	ATLANTIC	QUEBEC	ONTARIO	PRAIRIE	WESTERN	PROGRAM
Gunpowder & Explosives	2026	0.0	14.7	0.0	0.8	0.8	23.3	39.7
Containers & Closures- Returnable Wares	2063	1.2	3.1	1.1	5.0	5.2	23.5	39.1
Signal Systems	2123	0.0	1.8	27.6	0.8	3.7	2.4	36.3
Cooking Equipment for Food	2314	0.0	6.2	7.7	1.2	13.1	4.6	32.9
Maps & Charts	2052	3.7	4.5	1.5	2.6	5.3	15.1	32.6
Other Non-Elec. Off. Machines & Equip.	1737	1.9	9.4	1.2	10.9	1.9	6.0	31.2
Oversnow Vehicles	1749	0.0	14.4	3.6	4.8	7.4	0.0	30.2
Audio & Video Tapes	2049	4.3	4.8	0.4	4.5	5.7	10.3	30.0
Med. Supp., Ophthalmic Goods, Ortho. App.	2050	0.0	5.9	3.0	2.9	6.3	12.0	29.9
Leather, Furs & Rubber Fab. Materials	2019	0.9	4.5	0.4	3.8	6.8	12.1	28.5
Camping Equipment	2336	0.0	2.2	0.4	1.3	20.0	1.6	25.5
Flags	2067	0.1	7.4	3.2	8.9	1.4	3.6	24.6
Meas., Cont., Lab. Medical & Opt. Inst.	1718	2.0	0.4	2.8	1.9	3.2	13.1	23.4
Agricultural Machinery & Implements	2107	0.0	3.0	1.0	7.7	3.3	6.5	21.6
Medicinal & Pharmaceutical Products	2061	0.2	6.0	1.3	0.8	1.5	10.8	20.6
Laboratory Glassware	2119	0.4	0.0	0.0	0.1	0.0	19.4	19.9
Complete Slideshows, Films,Aud.& Vid. Tape	2081	0.4	2.6	7.0	3.2	0.5	3.8	17.5
Agricultural Tractors	1745	0.0	2.2	2.6	9.4	0.6	1.5	16.4
Kitchen Utensils, Cutlery & Tableware	2045	0.0	1.2	2.1	0.7	4.4	6.0	14.4
Non-Ferrous Metals	2029	0.7	2.4	3.1	2.6	2.9	1.3	13.0
Meat & Meat Preparations	2001	0.0	0.8	(0.5)	0.1	4.0	8.6	12.9
Agricultural Machinery & Implements	1704	0.0	5.2	0.0	4.5	0.8	2.2	12.8
Period Furniture Primarily for Hist. Sites	2038	0.0	6.3	0.0	3.7	1.1	1.3	12.4
Cooking Equip. for Food	2112	0.0	3.6	0.3	1.4	3.5	2.1	10.9
Cooking Equip. for Food	1712	0.0	0.5	1.5	0.0	2.4	5.1	9.7
Research Equipment	1716	6.9	0.2	0.0	0.3	0.0	1.9	9.4
Conveying, Elevat. & Mat. Handling Equip.	2105	0.0	0.2	1.7	1.8	0.0	5.6	9.3
Advances for Purchase of Artifacts	2072	0.0	8.4	0.0	0.0	0.0	0.0	8.4
Service Industry Equipment	2125	1.3	1.1	3.2	0.5	(7.0)	9.3	8.4
Underwater Equipment	1724	2.6	0.0	1.4	4.2	0.0	0.0	8.3
Tarpauline	2064	0.0	0.3	0.3	2.8	1.7	2.6	7.6
Lawn Mowers	2130	0.0	1.9	0.7	3.3	0.5	0.3	6.6
Facsimile Paper	2057	0.1	0.8	2.6	0.7	0.2	1.3	5.6
Advertising Related Materials & Supplies	2085	0.0	0.3	0.0	4.8	0.1	0.2	5.4
Publications Related Materials & Supplies	2086	0.5	1.5	0.0	0.7	1.0	1.6	5.3
Charges from Other Appropriations	2098	0.0	(10.3)	4.3	0.3	0.0	10.5	4.8
Beverages & Tobacco	2003	0.6	0.0	4.0	0.0	0.0	0.0	4.6
Charges from Other Appropriations	1798	0.0	0.0	4.5	0.0	0.0	0.0	4.5
Stores Surplus-Disposed to CADC	2079	0.0	0.0	0.0	2.1	0.0	2.3	4.4
Hydrogen & Helium	2024	0.0	0.3	1.6	1.1	0.4	0.1	3.5
Serv. Indust. Equip. Incl. Vending Mach.	1721	0.0	0.2	2.2	0.3	0.2	0.6	3.4
Library Loans Serv. (Inter-Library Loans)	2053	0.0	0.0	0.8	0.2	0.4	0.5	1.9
Charges from Other Appropriations	2398	0.0	1.1	0.0	0.0	0.2	0.0	1.3
Teletype Paper & Tape	2056	0.0	0.0	0.7	0.0	0.0	0.2	1.0
X-Ray & Related Equipment	1723	0.0	0.0	0.2	0.1	0.0	0.0	0.2
Charges from Other Appropriations	2198	0.0	(0.9)	0.0	0.0	0.0	1.0	0.0
Recov. of Incr. Exp. from Other Approp(cr)	2099	0.0	12.2	(4.3)	(8.0)	0.0	0.0	(0.1)
Recov. of Incr. Exp. from Other Approp(cr)	2399	0.0	(1.9)	0.0	0.0	0.0	0.0	(1.9)
Physical Inventory Adjustments	2078	0.0	(4.0)	(2.8)	(1.9)	0.1	4.6	(4.0)
Recov. of Incr. Exp. from Other Approp(cr)	2199	0.0	0.5	0.0	(5.0)	0.0	0.0	(4.5)
Stores Opening Balance	2075	0.0	2.7	0.0	0.0	0.0	(22.0)	(19.3)
General Stores Issue	2077	(164.8)	(898.4)	(322.8)	(623.8)	(427.0)	(3,244.0)	(5,680.8)
TOTAL		7,037.8	6,982.5	3,859.6	5,364.4	6,211.0	12,160.6	41,615.8